

## **REMARKS**

Claims 25, 58 and 66 are amended. Claims 25-62 and 65-69 are pending in the application. Claims 27, 34, 41 and 62 are withdrawn from consideration.

Claims 25-26, 28-33, 35-40, 42-61 and 65-69 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shindo, U.S. Patent No. 5,810,983; as combined with Bourabia, "Obtaining a high-purity cobalt from an industrial metal". The Examiner is reminded by direction to MPEP § 2143 that a proper obviousness rejection has the following three requirements: 1) there must be some suggestion or motivation to modify or combine reference teachings; 2) there must be a reasonable expectation of success; and 3) the combined references must teach or suggest all of the claim limitations. Claims 25-26, 28-33, 35-40, 42-61 and 65-69 are allowable over Shindo and Bourabia for at least the reason that the references, individually or as combined, fail to disclose or suggest each and every element in any of those claims.

As amended, independent claim 25 recites a high-purity cobalt material having a total non-cobalt metallic element component of less than 50 ppm where the non-cobalt metallic elements include less than 0.05 ppm Cr and a detectible amount of at least one of Mn, P, Mg and W. Shindo discloses cobalt materials containing various amounts of K, Na, H, Ni, U, Th, C, O and Na (table 1; table 2; col. 7, ll. 2-9; table 3; and table 4). Shindo does not disclose or suggest the claim 25 recited material containing a detectible amount of at least one of the recited list of elements.

The Examiner indicates at page 2 of the present Action that Bourabia is relied upon as disclosing some of the members of the group of elements recited in claim 25. Without admission as to the propriety of the Examiner's rejection, claim 25 is amended to recite a

detectible amount of at least one of Mn, P, Mg and W. Bourabia and Shindo, alone or in combination, fail to disclose or suggest a high-purity cobalt material comprising a detectible amount of at least one of Mn, P, Mg, and W as recited in independent claim 25. Accordingly, independent claim 25 is not rendered obvious by Shindo and Bourabia and is allowable over these references.

Dependent claims 26 and 28-30 are allowable over the combination of Shindo and Bourabia for at least the reason that they depend from allowable base claim 25.

Independent claims 31 and 42 each recite a high-purity cobalt material comprising from greater than 0 ppm to less than 0.12 ppm Mn. Neither Shindo nor Bourabia, or a combination thereof, discloses or suggests the recited high-purity cobalt material comprising from greater than 0 ppm to less than 0.12 ppm Mn. Accordingly, independent claims 31 and 42 are not rendered obvious by Shindo and Bourabia and are allowable over these references.

Dependent claims 23-33, 35-37 and 43-54 are allowable over Shindo and Bourabia for at least the reason that they depend from corresponding allowable base claims 31 and 42.

Each of independent claims 38 and 55 recite a cobalt material containing from greater than 0 ppm to less than 3 ppm of Ni. Applicant notes that Bourabia discloses a Ni content of 3.6 ppm (Table 3). The disclosure of 3.6 ppm of Ni does not disclose or suggest the claims 38 and 55 recited Ni content of from greater than 0 ppm to less than 3 ppm or suggest a method of achieving such recited feature. In combination, Bourabia and Shindo fail to disclose or suggest the claims 38 and 55 recited cobalt material having from greater than 0 ppm to less than 3 ppm of Ni. Accordingly, independent claims 38 and 55 are

allowable over these references.

Dependent claims 39-40 and 56-57 are allowable over the combination of Bourabia and Shindo for at least the reason that they depend from corresponding allowable base claims 38 and 55.

As amended, independent claim 58 recites a sputtering target comprising at least 99.999% cobalt and less than 50 ppm total metallic impurities including a detectible amount of at least one of Mn, P, Mg, and W. Independent claim 58 is allowable over the combination of Shindo and Bourabia for at least reasons similar to those discussed above with respect to independent claim 25.

Dependent claims 59-61 and 65 are allowable over Shindo and Bourabia for at least the reason that they depend from allowable base claim 58.

As amended, independent claim 66 recites a high-purity cobalt material containing from greater than 0 ppm to less than 0.1 ppm Zn. The amendment to claim 66 is supported by the specification at, for example, page 15, Table 1. Bourabia discloses a cobalt material containing 0.18 ppm of Zn among the impurities present (Table 3). As combined with Shindo, the 0.18 ppm Zn content disclosed by Bourabia does not disclose or suggest the claim 66 recited high-purity cobalt material comprising a zinc concentration of from greater than 0 ppm to less than 0.1 ppm, or suggest methodology for achieving this recited feature. Accordingly, independent claim 66 is not rendered obvious by the combination of Shindo and Bourabia and is allowable over these references.

Dependent claims 67-69 are allowable over Bourabia and Shindo for at least the reason that they depend from allowable base claim 60.

For the reasons discussed above claims 25-26, 28-33, 35-40, 42-61 and 65-69 are allowable. Accordingly, applicant respectfully requests formal allowance of claims 25-26, 28-33, 35-40, 42-61 and 65-69 in the Examiner's next action.

Respectfully submitted,

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